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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,862	06/27/2005	Ken Nishimura	043888-0384	4257
20277 7590 10/17/2007 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			EXAMINER RHEE, JANE J	
			ART UNIT 1795	PAPER NUMBER
			MAIL DATE 10/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/540,862

Applicant(s)

NISHIMURA ET AL.

Examiner

Jane Rhee

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/27/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1,8-13,16 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10540867 in view of Takatani et al. (JP (07-220755)).

Present application and copending application discloses an electrochemical device having an electrode plate assembly that comprises: (a) at least one first electrode; (b) at least one second electrode; and (c) a separator interposed between the first electrode and the second electrode, said first electrode (a) comprises a first current collector sheet having a conductive area and an insulating area and at least one first electrode mixture layer carried thereon, said second electrode (b) comprises a

Art Unit: 1745

second current collector sheet having a conductive area and an insulating area and at least one second electrode mixture layer carried thereon, said electrode plate assembly is a layered-type electrode plate assembly obtained by layering said first electrode, said second electrode and said separator, and the conductive area of said first current collector sheet is connected to a first terminal on a first side face of said layered-type electrode plate assembly, the conductive area of said second current collector sheet is connected to a second terminal on a second side face of said layered-type electrode plate assembly, the insulating area of said first current collector sheet is positioned on said second side face, and the insulating area of said second current collector sheet is positioned on said first side face.

Copending application fail to disclose wherein said electrode plate assembly includes a PTC device.

Takatani et al. teaches wherein the electrode plate assembly includes a PTC device for the purpose of preventing a burst due to decomposing an electrolyte and increasing an internal pressure by preventing a large current from being continued in the case of not only an external short circuit but also an internal short circuit (abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide the copending application with a PTC device in the electrode assembly in order to prevent a burst due to decomposing an electrolyte and increasing an internal pressure by preventing a large current from being continued in the case of not only an external short circuit but also an internal short circuit (abstract) as taught by Takatani et al.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Takatani et al. (JP 07-220755 english translation) in view of Thibault et al. (20010003863).

As to claim 1, Takatani et al. discloses an electrochemical device having an electrode plate assembly that comprises: (a) at least one first electrode (figure 1 number 11); (b) at least one second electrode (figure 1 number 13); and (c) a separator interposed between the first electrode and the second electrode (figure 1 number 14), wherein said electrode plate assembly includes a PTC devices (figure 1 number 9) said first electrode (a) comprises a first current collector sheet having a conductive area and at least one first electrode mixture layer carried thereon (figure 1 number 10,11), said second electrode (b) comprises a second current collector sheet having a conductive area and at least one second electrode mixture layer carried thereon (figure 1 number 12,13), said electrode plate assembly is a layered-type electrode plate assembly obtained by layering said first electrode, said second electrode and said separator (figure 1), and the conductive area of said first current collector sheet is connected to a first terminal on a first side face of said layered-type

electrode plate assembly, the conductive area of said second current collector sheet is connected to a second terminal on a second side face of said layered-type electrode plate assembly (figure 2 number 12,6,10,5).

Takatani et al. fail to disclose a first current collector sheet having an insulating area and a second current collector sheet having an insulating area and wherein the insulating area of said first current collector sheet is positioned on said second side face, and the insulating area of said second current collector sheet is positioned on said first side face.

Thibault et al. teaches a first current collector sheet having an insulating area and a second current collector sheet having an insulating area (paragraph 0014,0015) for the purpose of providing dimensional stability of the cell stack (paragraph 0149).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide, Takatani et al. with a first current collector sheet having an insulating area and a second current collector sheet having an insulating area in order to provide dimensional stability of the cell stack (paragraph 0149) as taught by Thibault et al.

Furthermore, since Takatani et al. teaches that the first current collector is positioned on the second side and the second current collector is position on the first side (figure 2 number 12 and 10) and Thibault et al. teaches a first current collector sheet having an insulating area and a second current collector sheet having an insulating area (paragraph 0014,0015), it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide, Takatani

Art Unit: 1745

et al. with the insulating area of said first current collector sheet is positioned on said second side face, and the insulating area of said second current collector sheet is positioned on said first side face in order to provide dimensional stability of the cell stack as taught by Thibault et al. (paragraph 0149).

As to claim 5, Takatani et al. discloses wherein said PTC device is shaped like a sheet (figure 1 number 9).

As to claim 6, Takatani et al. disclose wherein said PTC device is positioned on said first side face or said second side face (figure 1 number 8,9).

As to claim 7, Takatani et al. discloses wherein said PTC device is positioned in parallel with said first electrode, said second electrode and said separator in said layered-type electrode plate assembly (figure 1 number 9 and 8).

As to claim 8, wherein the insulating area of said first current collector sheet and the insulating area of said second current collector sheet are positioned on the side faces of said layered-type electrode plate assembly other than said first side face and said second side face, Thibault et al. teaches a first current collector sheet having an insulating area and a second current collector sheet having an insulating area positioned on the side faces of said layered-type electrode plate assembly other than said first side face and said second side face (paragraph 0014,0015) for the purpose of providing dimensional stability of the cell stack (paragraph 0149).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide, Takatani et al. with a first current collector sheet having an insulating area and a second current collector sheet having

Art Unit: 1745

an insulating area positioned on the side faces of said layered-type electrode plate assembly other than said first side face and said second side face in order to provide dimensional stability of the cell stack (paragraph 0149) as taught by Thibault et al.

As to claim 9, wherein said layered-type electrode plate assembly has a side face on which the insulating area of said first current collector sheet and/or the insulating area of said second current collector sheet are/is positioned, other than said first side face and said second side face, Thibault et al. teaches a first current collector sheet having an insulating area and a second current collector sheet having an insulating area positioned on the side faces of said layered-type electrode plate assembly other than said first side face and said second side face (paragraph 0014,0015) for the purpose of providing dimensional stability of the cell stack (paragraph 0149).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide, Takatani et al. with a first current collector sheet having an insulating area and a second current collector sheet having an insulating area positioned on the side faces of said layered-type electrode plate assembly other than said first side face and said second side face in order to provide dimensional stability of the cell stack (paragraph 0149) as taught by Thibault et al.

As to claim 10, Takatani et al. discloses wherein said first side face and said second side face are positioned on opposite sides of said layered-type electrode plate assembly (figure 2, top is near 6 and bottom is near 5).

As to claim 11, wherein a first insulating material portion is provided between said first terminal and said first side face for insulating said first terminal from said second electrode, and a second insulating material portion is provided between said second terminal and said second side face for insulating said second terminal from said first electrode, Thibault et al. teaches a first current collector sheet having an insulating area and a second current collector sheet having an insulating area (paragraph 0014,0015) for the purpose of providing dimensional stability of the cell stack (paragraph 0149).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide, Takatani et al. with a first current collector sheet having an insulating area and a second current collector sheet having an insulating area in order to provide dimensional stability of the cell stack (paragraph 0149) as taught by Thibault et al.

Furthermore, since Takatani et al. teaches that the first current collector is positioned on the second side and the second current collector is position on the first side (figure 2 number 12 and 10) and Thibault et al. teaches a first current collector sheet having an insulating area and a second current collector sheet having an insulating area (paragraph 0014,0015), it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide, Takatani et al. with a first insulating material portion is provided between said first terminal and said first side face for insulating said first terminal from said second electrode, and a second insulating material portion is provided between said second terminal and said

Art Unit: 1745

second side face for insulating said second terminal from said first electrode in order to provide dimensional stability of the cell stack as taught by Thibault et al. (paragraph 0149).

As to claim 12, Takatani et al. fail to disclose, wherein said electrode plate assembly is a wound-type electrode plate assembly obtained by layering and winding said first electrode, said second electrode and said separator.

Thibault et al. teaches wherein said electrode plate assembly is a wound-type electrode plate assembly obtained by layering and winding said first electrode, said second electrode and said separator (paragraph 0001) for the purpose of making a prismatic cell (paragraph 0001).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide, Takatani et al. with said electrode plate assembly that is a wound-type electrode plate assembly obtained by layering and winding said first electrode, said second electrode and said separator in order to make a prismatic cell (paragraph 0001) as taught by Thibault et al.

13. Takatani et al. and Thibault et al. in combination discloses wherein the conductive area of said first current collector sheet is connected to a first terminal on a first bottom face of said wound-type electrode plate assembly, the conductive area of said second current collector sheet is connected to a second terminal on a second bottom face of said wound-type electrode plate assembly, the insulating area of said first current collector sheet is positioned on said second bottom face, and the insulating

Art Unit: 1745

area of said second current collector sheet is positioned on said first bottom face as discussed above.

As to claim 14, Takatani et al. discloses wherein said PTC device is shaped like a flat plate or a round plate (figure 1 number 8,9).

As to claim 15, Takatani et al. discloses wherein said PTC device is positioned on said first bottom face or said bottom face (figure 1 number 8,9).

As to claim 16, Takatani et al. fail to disclose wherein a first insulating material portion is provided between said first terminal and said first bottom face for insulating said first terminal from said second electrode, and a second insulating material portion is provided between said second terminal and said second bottom face for insulating said second terminal from said first electrode.

Thibault et al. teaches a first current collector sheet having an insulating area and a second current collector sheet having an insulating area (paragraph 0014,0015) for the purpose of providing dimensional stability of the cell stack (paragraph 0149).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide, Takatani et al. with a first current collector sheet having an insulating area and a second current collector sheet having an insulating area wherein a first insulating material portion is provided between said first terminal and said first bottom face for insulating said first terminal from said second electrode, and a second insulating material portion is provided between said second terminal and said second bottom face for insulating said second terminal from said first

Art Unit: 1745

electrode in order to provide dimensional stability of the cell stack (paragraph 0149) as taught by Thibault et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane Rhee whose telephone number is 571-272-1499. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jane Rhee
October 13, 2007